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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,578	06/06/2005	Josef Thomas Martinus Van Beek	NL021201	4902
65913	7590	11/20/2007		
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER CHANG, JOSEPH	
			ART UNIT 2817	PAPER NUMBER
			NOTIFICATION DATE 11/20/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

## Office Action Summary

Application No.

10/537,578

Applicant(s)

VAN BEEK, JOSEF THOMAS  
MARTINUS

Examiner

Joseph Chang

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/6/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Engeler, US Patent 3,614,678.

Regarding claim 1, Engeler discloses in Figures 1-31 an electromechanical transducer (Figures 6-8) for transducing an electrical input signal into an electrical output signal, the transducer comprising: a substrate (10), an electrically conductive resonator element (20) attached to the substrate (10) the resonator element (20) extending in a longitudinal direction having a length (see Fig 6), an electrically conductive actuator (24, 25) able to receive an electrical actuation potential difference with respect to the resonator element for inducing an elastic deformation of the resonator element (20), the actuation potential difference being a function of the input signal (19), the elastic deformation comprising a change of the length (intrinsic property of resonator element), the resonator element (20) comprising a resistor with an ohmic resistance which is a function of the change of the length (col. 6, lines 59-71), the output signal (8, 9) being a function of the resistance (see Figure 8).

Regarding claim 2, Figure 6 shows first and second part (left and right 20) and a deformation-free part (between left and right part, center of 20), a support area (12); the functional limitation recited in the claim corresponds to the intrinsic property of resonator element (col. 6, lines 59-71).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engeler in view of Niu et al. US 2003/0052742.

Regarding claims 3-4, as noted above, Engeler disclose an electromechanical transducer as recited in the claims except specific structures with power supplying scheme associated with ring shape of resonator. As would have known in the art, for example, Niu et al. shows various shapes of MEMS resonators include a ring shape. One of ordinary skill in the art would have modified to such a shape because such a modification would have been an obvious engineering design variance. It is noted that the functional limitations recited in the claims would have been an obvious consequence of the modification.

Regarding claims 5-6, such usage of different material for different conductivity would have been obvious based on the suggestion disclosed in Engeler (col. 7 line 65 - col. 10 line 75).

Regarding claims 7-10, Figure 8B of Engeler shows Wheatstone bridge (col. 7 line 1) and the structure recited in the claims would have been obvious based on engineering design variance.

Regarding claim 11, such a device (an electronic device with a signal processor and a clock signal) would have been obvious based on intended application of the transducer.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Castera discloses an oscillator including delay lines of different lengths.

Guckel et al. discloses polysilicon resonating beam transducers.

Cruger et al. discloses electromechanical oscillator using electrostatic coupling

Buchy et al. discloses oscillators using displacements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Chang whose telephone number is 571 272-1759. The examiner can normally be reached on Mon-Fri 0700-1730.

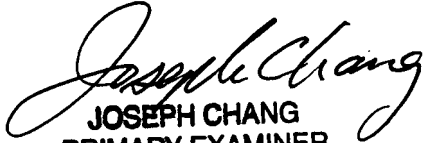
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/31/07

  
JOSEPH CHANG  
PRIMARY EXAMINER